# SECTION F1000

# SPECIAL CONSTRUCTION
# 01/02

## PART 1 GENERAL

Provide Y2K compliant computer controlled facility components (CCFC) for systems specified in this section. CCFC has software driven technology and embedded microchip technology and includes any facility control system utilizing microcomputer, minicomputer, or programmable logic controller. Y2K compliant, by definition, means "computer controlled facility components that accurately process date and time data, including but not limited to, calculating, comparing, and sequencing from, into, and between the twentieth and twenty-first centuries, and the years 1999 and 2000 and leap year calculations." In developing the design specifications for the systems required by this performance section, specifically identify CCFC equipment and its associated Y2K compliance requirements.

### 1.1 SYSTEM DESCRIPTION

NOTE: The reference to vaults is included as an example of the depth of detail required for an addition to this specification.

Provide a [_____].

[Provide Class A vault construction of reinforced concrete systems for the floor, walls, and ceiling/roof of the [_____] [Weapons Storage Area (WSA)] [Armory] space.]

[Provide Security Vault Door with Day Gate for the door into the [_____] [WSA] [Armory] space.]

### 1.2 SYSTEM REQUIREMENTS

a. [_____]

b. [_____]

c. [The [_____] [Weapons Storage Area (WSA)] [Armory] space shall provide at least 10 minutes of delay time against low and medium threat severity levels of forced entry. The door into the [_____] [WSA] [Armory] space must be a GSA-Approved and labeled Class 5 Security Vault Door. Provide door manufacturer's modified standard or custom Day Gate for access control and weapons issue. Section D5000, "Electrical Systems", includes requirements for Intrusion Detection System (IDS) within the space and for Security Lighting at the outside of the Vault Door to the space.]

### 1.3 CRITERIA

[a. Military Handbook MIL-HDBK-1013/1A, Design Guidelines for Physical Security of Facilities]

[b. Federal Specification FS AA-D-00600, (Rev. C; Int Am. 1) Door, Vault Security.]

c. [_____]

## 1.4 COMPLIANCE VERIFICATION

Compliance with the requirements will be determined by a review of the design and construction submittals and by field inspection. See Document 00911, Design Requirements, for submittal requirements. See Section 01330, Submittal Procedures, for Submittal Descriptions (SD-xx) and requirements.

## 1.5 DESIGN SUBMITTALS

### 1.5.1 Design Analyses and Drawings

SD-02 Shop Drawings

[Security vault door and day gate]

[Reinforced concrete Class A Vault]

[Location and details of the Security Vault Door opening]

[_____]

### 1.5.2 Design Specifications

SD-03 Product Data

[Security vault door and day gate]

[_____]

SD-07 Certificates

Year 2000 (Y2K) Compliance Warranty

[1) Security vault door combination lock]

[2) _____]

For each product, component, and system specified in this section as a "computer controlled facility component," provide a statement of Y2K compliance warranty for the specific equipment. If the specific listed equipments must perform as a system to exchange date and time data, then that warranty shall apply to those specific equipments as a system.

## 1.6 CONSTRUCTION SUBMITTALS

SD-[XX] [_____]

[_____]

[_____]

SD-09 Manufacturer’s Field Reports

Y2K Demonstration

For each product, component, and system specified in this section as a "computer controlled facility component," provide a field test to demonstrate Y2K compliance.

SD-10 Operation and Maintenance Data

[Security vault door and day gate]

[_____]

## PART 2 SYSTEM COMPONENTS

### 2.1 SPECIAL STRUCTURES (F1010)

#### 2.1.1 [_____]

a. [_____].

1) Acceptable construction includes:

a)

b)

2) [_____].

b. Provide [_____].

### 2.2 INTEGRATED CONSTRUCTION (F1020)

#### 2.2.1 VAULT AND DOORS

##### 2.2.1.1 VAULT

The [_____] [Weapons Storage Area (WSA)] [Armory] space shall be designed in accordance with criteria in MIL-HDBK-1013/1A to provide at least 10 minutes of delay time against low and medium threat severity levels of forced entry. The space is required to be built to the construction standards described in MIL-HDBK-1013/1A for Class A vaults. The reinforced concrete must have minimum 28-day compressive strength of at least 20,684 kPa [(3000 PSI)] and the floor, walls, and ceiling/roof components of this space must all be cast in place and at least 200 mm [(eight inches)] thick. The door into the [_____] [WSA] [Armory] space must be a GSA-Approved and labeled Class 5 Security Vault Door that conforms to Federal Specification AA-D-00600. Provide door manufacturer's modified standard or custom Day Gate, designed for use with the vault door furnished, for access control and weapons issue. Except for the door opening, penetrations and openings through the structural "security" envelope of the floor, walls, and/or ceiling/roof of the [_____] [WSA] [Armory] space that are 618 sq. cm [(96 sq. in)] or greater with the least dimension greater than 150 mm [(6 inches)] are not allowed. Section D5000, "Electrical Systems", includes requirements for Intrusion Detection System (IDS) within the space and for Security Lighting at the outside of the Vault Door to the space.

a. Where the perimeter walls of the WSA spaces are part of the facility exterior walls, the vault walls shall be set back from the

exterior part of the exterior wall to allow at least 100 mm [(4 inches)] for the normal wall facing to cover the vault walls.

[b. Where a WSA space exceeds 90 sq m [(1000 square feet)] in floor area, or will have more than eight occupants, the space shall have a minimum of 2 exits for safety purposes. When more than one entrance / exit is required, each shall be equipped with a Security Vault Door, with only one used for normal entry access.]

### 2.2.1.2 Security Vault Door

Security Vault Door must be GSA-Approved and labeled Class 5 Security Vault Door that conforms to Federal Specification AA-D-00600. The combination lock that is required as part of Security Vault Door is an electronic-mechanical item that must be Year 2000 Compliant.

Provide GSA-Approved and labeled Class 5 Security Vault Door that conforms to Federal Specification AA-D-00600. Door[s] [for normal entry access] shall be Class 5, either Type IIR- right opening swing without optical device or Type IIL- left opening swing without optical device as determined by design arrangement, Style K- Key change combination lock, Design S- single lock. [Where a second door is required for safety purposes, door[s] for exit only shall be Class 5, either Type IR- right opening swing with optical device or Type IL- left opening swing with optical device as determined by design arrangement, Style K- Key change combination lock, Design B- no exterior hardware.]

### 2.2.1.3 Day Gate

Provide vault door manufacturer's modified standard or custom day gate designed for use with vault door furnished, for access control and weapons issue. Day gate construction shall be minimum 3.4 mm [(10 gage)] steel flattened and expanded metal welded to a 25 mm [(1 inch)] minimum steel channel or angle welded frame; expanded metal pattern shall be 25 by 45 mm [(1 by 1.75 inch)] diamond grid. Maximum clearance between sides, top and bottom of the day gate and the vault doorframe and floor shall be 25 mm [(1 inch)] when the day gate is closed. Provide gate hinged on same side as the vault door, swinging to 180 degrees into the vault from closed to open positions. Provide day gate with locking device operable from both sides; the outside by key and the inside by key, knob, lever, or deadbolt; the inside locking device shall either be positioned so that it is not accessible from the outside or it shall be operable by key only. Day gate shall include an issue port opening, cover with locking mechanism, and shelf. The issue port shall be a framed opening welded to the day gate frame with a hinged door cover. The hinged door shall be minimum 1.2 mm [(18 gage)] steel and shall be lockable from the inside only. The opening shall be 200 mm [(8 inches)] high and 300 mm [(12 inches)] wide; tolerances are plus or minus 3.2 mm [(0.125 inch)]. When the issue port is closed, the hinged door cover shall match the opening to within 1.6 mm [(0.0625 inch)]. The shelf shall be minimum 1.5 mm [(16 gage)] stainless steel, 300 mm [(12 inches)] deep by 300 mm [(12 inches)] wide to match the port opening, and shall be capable of withstanding a vertical force of 445 N [(100 lbf)] at any point without deformation. Provide the manufacture's standard painted finish to match that of the vault door. The day gate shall not interfere with the operation of vault door inner escape device.

**2.3 SPECIAL CONSTRUCTION SYSTEMS (F1030)**

**2.4 SPECIAL FACILITIES**

**2.5 SPECIAL CONTROLS AND INSTRUMENTATION**

**END OF SECTION**